

Applicant : Fong-Shek Lam et al.
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In the claims:

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Please amend claims 1-3, 8-11, 14, 15, 18, and 22 as follows:

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1. (Currently Amended) A method comprising:
setting an indicator in a line buffer, the line buffer to
store up to a full line of video overlay data;
reading pixel data for a current video line from the line
buffer;
determining when the pixel data reaches the indicator; and
loading data for the next video line into the line buffer.
2. (Currently Amended) The method of Claim 1, ~~further~~
~~comprising~~ wherein setting the indicator in the line buffer
comprises setting the indicator at approximately a middle of the
line buffer, and wherein loading data for the next video line
into the line buffer comprises loading a first half of the data
for the next video line when the pixel data being read reaches
the indicator in the line buffer, and further comprises loading
a second half of the data for the next video line when the pixel
data being read reaches the end of the line buffer.

3. (Currently Amended) The method of Claim 1, wherein
loading data for the next video line comprises:

loading a first portion of the data for the next video line
when the pixel data reaches the indicator; and

loading a second portion of the data for the next video
line when the pixel data reaches the end of the line

buffer further comprising loading data for the next video line to
replace data for the current video line in the line buffer.

4. (Original) The method of Claim 1, further comprising
processing the current video line data for display.

5. (Original) The method of Claim 4, further comprising
displaying the processed video line data.

6. (Original) The method of Claim 5, further comprising
creating a video overlay from the processed video line data.

7. (Original) The method of Claim 1, further comprising
positioning the pixel data on an active display to create a
video overlay.

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8. (Currently Amended) A method of processing video overlay data comprising:

reading video overlay data for a current video line from a line buffer, the line buffer to store up to a full line of the video overlay data;

detecting the position in the line buffer the video overlay data is located; and

loading data for the next video line into the line buffer when the video overlay data for the current video line is located at a predetermined position.

9. (Currently Amended) The method of Claim ~~128~~, further comprising setting the predetermined position at a position before all the current line of video line overlay data is read.

10. (Currently Amended) The method of Claim 8, ~~further comprising wherein the predetermined position is~~ setting the predetermined position at approximately a midpoint of the line buffer, and wherein loading data for the next video line into the line buffer comprises loading a first half of the data for the next video line after the video data for the current video line has been read from the predetermined position, and further comprises loading a second half of the data for the next video

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line after the video data for the current video line has been
read from the end of the line buffer.

11. (Currently Amended) The method of Claim 8, wherein
loading data for the next video line comprises:

loading a first portion of data for the next video line
into the line buffer when the video data from the predetermined
position has been read; and

loading a second portion of data for the next video line
into the line buffer when the video data from the end of the
line buffer has been read~~further comprising loading data for the~~
~~next video line to replace data for the current video line in~~
~~the line buffer.~~

12. (Original) The method of Claim 8, further comprising
processing the current video line data for display.

13. (Original) The method of Claim 12, further comprising
displaying the processed video line data.

14. (Currently Amended) A overlay display processor
comprising:

a line buffer to store up to a full line of video overlay data, the line buffer having a plurality of memory locations, the line buffer adapted to provide data to a display; and

an indicator positioned at a predetermined memory location in the line buffer, wherein the line buffer begins to read data for a next video data line when the line buffer provides data from the indicator memory location.

15. (Currently Amended) The computer of Claim 14, further comprising:

graphic memory which provides the video pixel data to the line buffer; and

a pixel processing engine to determine whether data for a current video line has been read from the predetermined memory location in the line buffer, the pixel processing engine further to subsequently load a first portion of data for the next video line into the line buffer.

16. (Previously Amended) The computer of Claim 14, wherein the line buffer provides data to the display for a current video line.

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17. (Previously Amended) The computer of Claim 14,
wherein the indicator is located at a position at approximately
a midpoint of the line buffer.

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18. (Currently Amended) A overlay display system
comprising:

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video memory which stores video data;

an overlay processing engine comprising:

a line buffer to store up to a full line of video overlay
data, the line buffer to which receives the video overlay data
from the video memory, wherein said line buffer includes an
indicator positioned at a predetermined memory location in the
line buffer;

video processing circuitry ~~for~~ to prepare the video
overlay data in the line buffer to be displayed; and

a display ~~which~~ to receives the processed data from the
overlay processing engine, wherein the line buffer ~~begins~~ is to
read data for a next video data line when the line buffer
provides a predetermined amount of data to the display for a
current video data line.

19. (Original) The computer of Claim 18, wherein the predetermined amount of data is approximately half the data comprising the current video data line.

20. (Original) The computer of Claim 18, wherein the overlay processing engine provides data to the display to create a video overlay.

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21. (Original) The computer of Claim 18, wherein the video processing circuitry includes pixel color conversion and adjustment.

22. (Currently Amended) A program storage device readable by a machine comprising instructions that cause the machine to:
set an indicator in a line buffer, the line buffer to store up to a full line of video overlay data;

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read pixel data for a current video line from the line buffer;

determine when the pixel data reaches the indicator; and
load data for the next video line into the line buffer.

23. (Previously Amended) The program storage device of Claim 22, wherein the instructions further cause the machine to

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set the indicator at approximately a middle of the line

buffer. --

*Pl
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